REMARKS

In accordance with the foregoing, claims 3, 7, 13 and 17 have been rewritten to independent form, in each case, incorporating the limitations of the respective independent and intervening dependent claims and the aforesaid respective independent and intervening dependent claims have been cancelled. Thus, claims 1, 2, 5, 6, 8, 9, 11, 12, and 16 are cancelled. New dependent claims 21-24 are presented, as discussed below.

No new matter is presented and, hence, approval and entry of the foregoing claim amendments and new claims are respectfully requested.

STATUS OF CLAIMS

Claim 10 is stated to be allowable if the 35 U.S.C. §112 paragraph 2 rejection is overcome.

Claims 3-4, 7, 13-15, 17 and 18 are objected to but are indicated to be allowable if suitably rewritten to independent form.

Claims 1, 2, 5, 6, 8, 11 and 12 are rejected.

Claims 3, 4, 7, 10, 13-15 and 17-24 are pending and under consideration.

ITEM 6: REJECTION OF CLAIMS 1, 2, 5, 6, 8, 11 AND 12 UNDER 35 U.S.C. §103(a) OVER KIM (U.S. PATENT 6,211,867) IN VIEW OF TANAKA (U.S. PATENT 5,438,290)

These rejections are rendered moot in view of the foregoing cancellation of the rejected claims. Accordingly, withdrawal of the rejection is respectfully requested.

ITEM 2: REJECTION OF CLAIMS 1 AND 11 UNDER 35 U.S.C. §112, PARAGRAPH 1 AS FAILING TO COMPLY THE REWRITTEN DESCRIPTION REQUIREMENT, WITH RESPECT TO THE LIMITATION "THE ADJUSTMENT BY SAID FIRST PHASE ADJUSTMENT CIRCUIT BEING INDEPENDENT OF THE ADJUSTMENT OF SAID SECOND PHASE ADJUSTING CIRCUIT."

The rejection is respectfully traversed.

The Examiner is respectfully directed to the specification at page 15, line 7 through page 16, line 33 discussing FIGS. 12 and 13 relating to the process of individually setting each phase adjusting circuit. Note that in each of Steps 101 through 104 only a respective, single/individual element is involved - - e.g., Step 101: "measure a delay time of an output device", Step 102: "measure a delay time of a drive circuit", Step 103: "calculate a delay time of a phase adjusting circuit by subtracting the two delay times from a predetermined delay time" and Step 104: "set the delay time of the phase adjusting circuit."

As explained in the specification at page 15, lines 19-21: "Such a process is applied to all sets. As a result, each output device turns on or off with a predetermined timing."

The specification proceeds at page 15, line 25 et seq. to note that whereas FIG. 12 compensates for variation in delay times of the output devices and the drive circuits, it is preferable to "optimize the timing of the sustaining pulses according to the PDP apparatus because there may be a variation in capacitances between electrodes of the PDP apparatus..., changing the time constant of the oscillation circuit in the power recovery circuit. FIG. 13 is a flow chart of a process of setting the delay time of the phase adjusting circuit to the optimum value...." As further discussed through pages 16 and 17, in Step 112, "a circuit" for adjusting is selected (from among the first and second X sustaining circuits and the first and second Y sustaining circuits. In Step 113: "select a set for adjusting" - - which page 16 explains at lines 9-13 to mean that "a set for adjusting..." more specifically is a "phase adjusting circuit, among the first through fourth adjusting circuits 51-54." In that regard, see FIG. 7 illustrating such first through fourth phase adjusting circuits 51-54 along with respective drive circuits 32, 34, 38, and 41 and respective output devices 31, 33, 37, and 40 (specification at pages 12-13).

The steps of FIG. 13, from 111 to 116, all relate to the adjustment of phase of a single, individual selected set and, when results are within tolerances (Step 115), the process flow proceeds to Step 117 to inquire "are all sets finished" - - and, if not, the flow proceeds to Step 118: "change the set for adjusting" with a return to Step 114 to repeat the measurement and adjusting functions for the next selected set - - until, at Step 119, when the decision of "are all of circuits finished" is answered "YES", the process ends.

Thus, it is believed clear that there is abundant, clear support under 35 U.S.C. §112, paragraph 1 for the recitation in each of independent claims 1 and 11, that the adjustment performed by the first phase adjusting circuit is independent of the adjustment by the second phase adjusting circuit. Based on a discussion with Examiner Fritz Alphonse on September 14, 2005, it was agreed that the clause in question in each of claims 1 and 11 is not deemed material to patentability of claims 3 and 7, if rewritten to independent form and, accordingly, these limitations have been cancelled from claims 1 and 11 but are reinstated as new dependent claims 21/3, 22/7, 23/13 and 24/17.

ITEM 4: REJECTION OF CLAIM 19 UNDER 35 U.S.C. §112, PARAGRAPH 2

The rejection is respectfully traversed.

This rejection particularly asserts that the limitation of claim 19, of "and a time difference between a turning on of the fourth output device of said respective X or Y sustaining circuit and

turning on of the second output device thereof..." is not clear, and questions what is meant by "second output device thereof." (Action at page 3)

The Examiner's attention is addressed to the foregoing discussion of FIGS. 12 and 13 and the provision of four "sets" and particularly, the first through fourth phase adjusting circuits 51 through 54, with related driving devices 32, 34, 38 and 41 and related output devices 31, 33, 37 and 40, respectively (specification at page 15, line 7 et seq.) More particularly, beginning at page 18, line 7 et seq., the specification teaches that "there should be no difference in on/off timing between sustaining pulses put out of the first X sustaining circuit and applied to the odd-numbered X electrodes and those put out of the first and the second Y sustaining circuits and applied to the odd-numbered and even-numbered Y electrodes, and also there should be no difference in timing between the sustaining pulses put out of the second X sustaining circuit and applied to the even-numbered X electrodes and those put out of the first and second Y sustaining circuits and applied to the odd-numbered and even-numbered Y electrodes." (Page 18, lines 10-20). Claim 19 has been amended to recite that the adjusting circuits adjust the timing so as to prevent - - any substantial - - time difference between the "turning on" of the fourth and second output devices. Further, new claim 20/19 is presented which specifies that the difference is - - within ±30ns - - (as in claim 7).

The Examiner is referred to the specification at page 8, line 15 et seq. which explains the problems which occur if the on/off timing of the output devices 31, 33, 37, and 40 in the sustaining circuit is to shift. Particularly, the power recovery rate is dispersed and is lower than in an ideal case, causing power consumption to increase. Other problems may occur, such that discharge for light emission may take place temporarily at a display line not selected for display, decreasing wall-charge accumulated during the address period and resulting in an abnormal display. (See pages 10-11). Thus, as explained in the paragraph at page 12, lines 7-12, it is necessary for each phase adjusting circuit to be able to "adjust the time differences from turn-on of the third output device and to that of the first output device, and from turn-on of the fourth output device and to that of the second output device." (This is substantially the identical language of claim 19 to which the Section 112, paragraph 2 rejection is focused.

As explained in the specification page 12, line 36-page 13, line 7, the sustaining circuits of the embodiments of the present invention are different from those of the prior art shown in FIG. 3 such that, even though delay times of the output devices and of the drive circuits in accordance with the invention are "dispersed, it is still possible to achieve the optimized state of the on/off timing of the output devices 31, 33, 37 and 40 as shown in FIG. 8 by adjusting the delay in the first phase adjusting circuit 51 through the fourth phase adjusting circuit 54."

The foregoing discussion in relation to the Section 112, paragraph 1 rejection of claims

11 and 12 is applicable as well in response to the corresponding rejection of claim 19. Nevertheless, to the extent that the term "thereof" is the source of the Section 112, paragraph 2 rejection of claim 19, the phrase - - of said respective X or Y sustaining circuit - - has been substituted in place of the term "thereof".

Accordingly, it is submitted that claim 19 has no indefiniteness under Section 112, paragraph 2 and the rejection should be withdrawn.

CONCLUSION

In accordance with the foregoing, it is submitted that all rejections or objections as to claims 1, 11 and 19 under 35 U.S.C. §112 have been overcome and, in accordance with the revisions of the allowable dependent claims to independent form, as suggested in the Action, and the canceling of the previously rejected claims, that all claims now pending in the application distinguish patentably over the art of record. There being no other objections or rejections, it is submitted that the application is in condition for allowance, which action is earnestly solicited.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: _____ By: _____

H. J. Staas
Registration No. 22,010

1201 New York Avenue, NW, Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501